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Elevators

Warsaw Elevator Co.

WARSAW,

N. Y., U. S. A.

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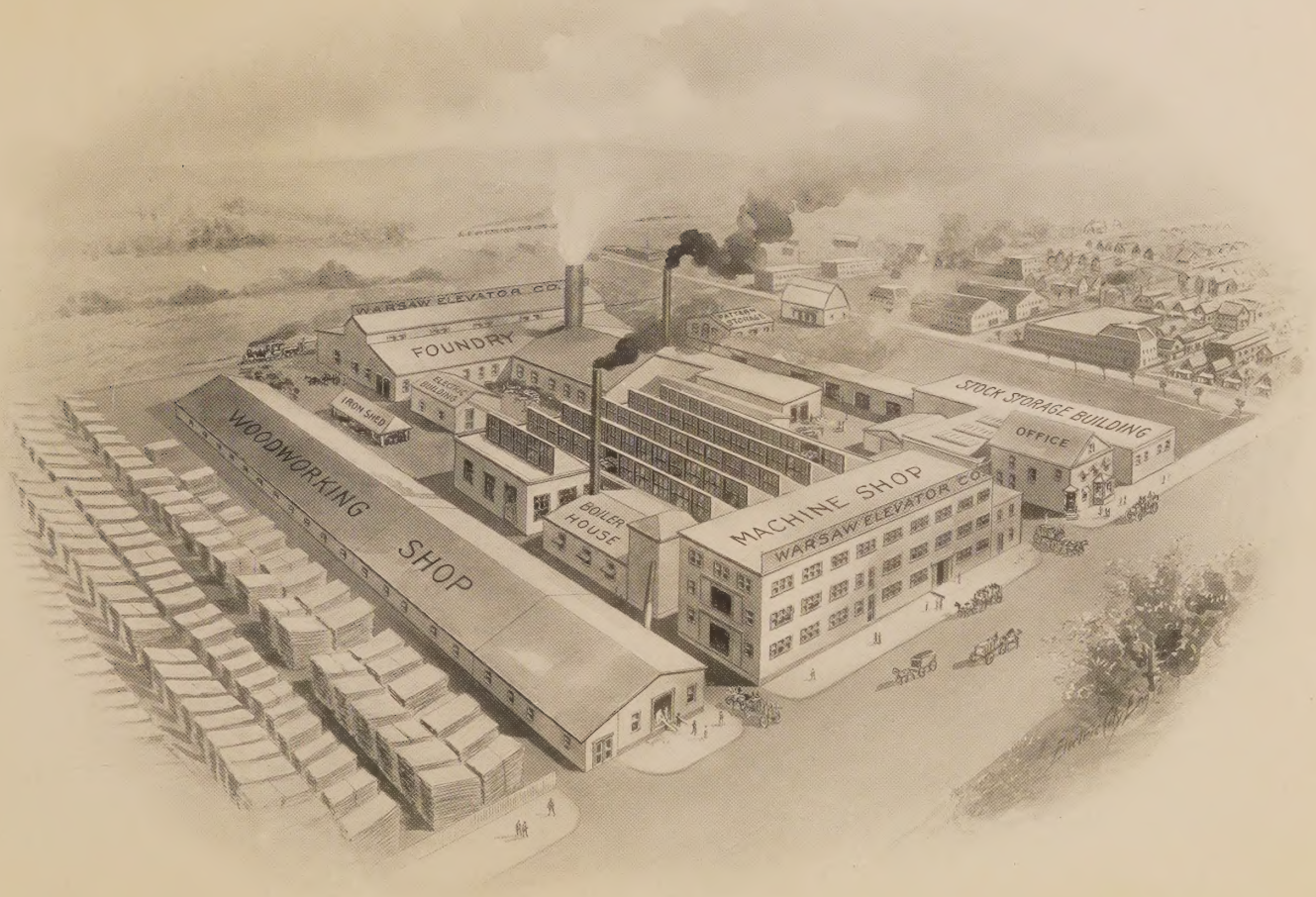
WARSAW ELEVATOR CO.
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DIRECT CONNECTED
ELECTRIC PASSENGER ELEVATOR
FULL MAGNET CONTROL

Direct Connected Electric Passenger Elevator

Operated by a Car Switch

THE cut on following page shows our latest improved Full Magnet Control type of Elevator, operated by Switch in car. The winding machine may be located on either side of car in basement, or directly underneath car if preferred, on a concrete foundation; or, if hatchway is of steel or brick, so there is sufficient support, the machine may be located directly over car.

Guides may be of steel or wood, as desired.

The winding machine is provided with Solenoid or Electric Brake, which is applied automatically with the cutting out of the current, and in the case of very heavy loads or high speed we recommend two brakes.

Machine is also provided with Electric Slack Cable Stop, which cuts current automatically on the slackening of lifting cables. It also has automatic Electric Limitation Stops, which cut out current when car reaches top or bottom landings.

As a further factor of safety we furnish Hatch Limit Switches, which will automatically cut out current if car should run by the terminal landings. We also provide a Safety Switch in car, conveniently placed so that operator may cut out current from car, if desired, at any time.

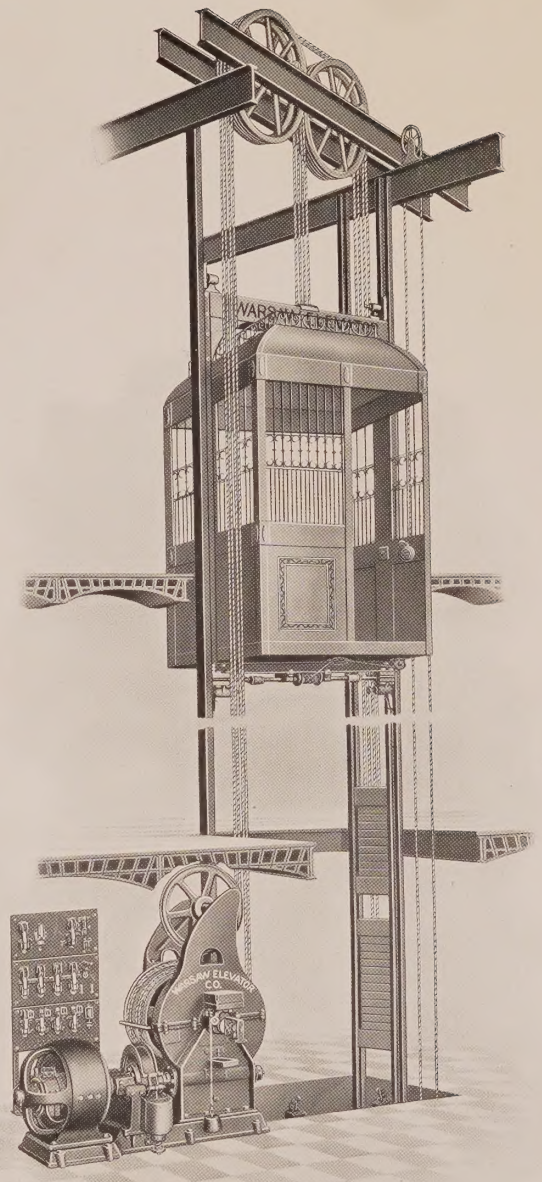
For the operation of the machine we provide a switch in car which is self-centering when operator releases handle, and it also locks automatically when it comes to central position.

For direct current we provide and recommend a two-speed controller where car speed runs above 150 ft. per minute.

We furnish this type of Elevator in both direct and alternating current, and in capacities from 1000 to 6000 pounds, and from 100 to 250 ft. per minute.

We provide a compression type of Safety for underside of car, which is operated by an Automatic Speed Governor, bringing car to a gradual stop in case of excessive speed.

We use only finest material in construction, the Gear Metal being of phosphor bronze, and worm and worm shaft are in one piece, cut from a solid forging.


WARSAW ELEVATOR CO.

DIRECT-CONNECTED
ELECTRIC
PASSENGER ELEVATOR
WINDING ENGINE
OVERHEAD IN HATCHWAY

Direct Connected Electric Passenger Elevator

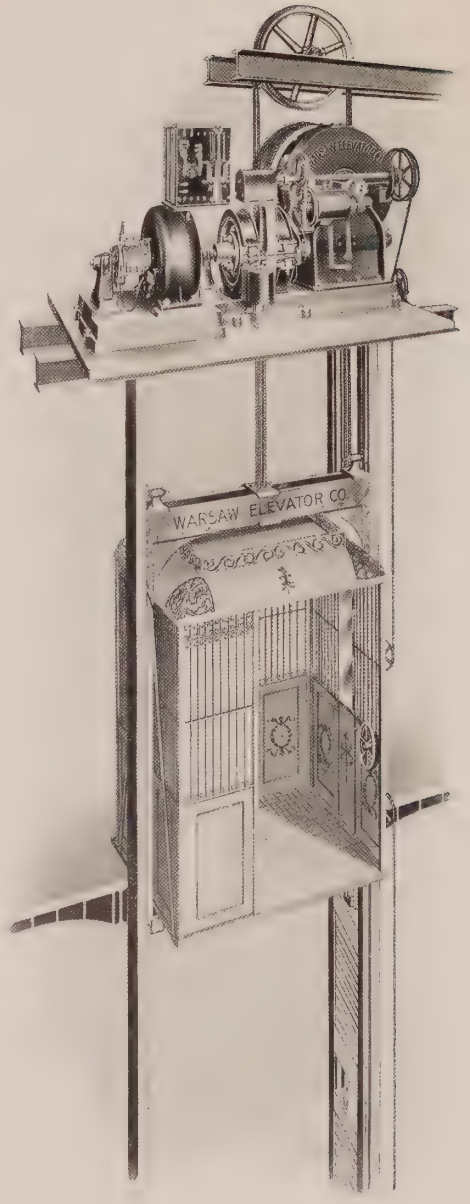
Winding Engine Overhead in Hatchway

HEREWITH we illustrate one of our most desirable types of passenger elevators.

The winding engine overhead in the hatchway possesses many advantages, every part of it being contained within the hatchway. This precludes the necessity of using any of the floor space in the building. The cables leading directly from the hoisting drum to the cage eliminates a large percentage of the friction, resulting in a saving of electric current.

We build this type entirely of Steel, part Steel and part Wood, as per illustration, or of Wood throughout, as desired, also with Lever Control, Hand Cable Control or with Pilot Wheel as shown here.

The Winding Engine, a most important feature, is very substantially and carefully built, the Worm Gear being of Phosphor Bronze with the teeth cut from the solid, and the Worm and shaft forged in one piece from best crucible Steel and the thread also cut from the solid metal by Special Machinery; Worm Shaft bearings Bronze Bushed, drum shaft bearings best babbitt lined, all Journals of Polished Steel, ball bearing thrust, powerful leather lined brake, latest type of safeties, in fact the best of everything necessary for a lasting and satisfactory service.


WARSAW ELEVATOR CO.

ELECTRIC
DIRECT CONNECTED
PASSENGER ELEVATOR
WITH PILOT WHEEL

Direct Connected Electric Passenger Elevator

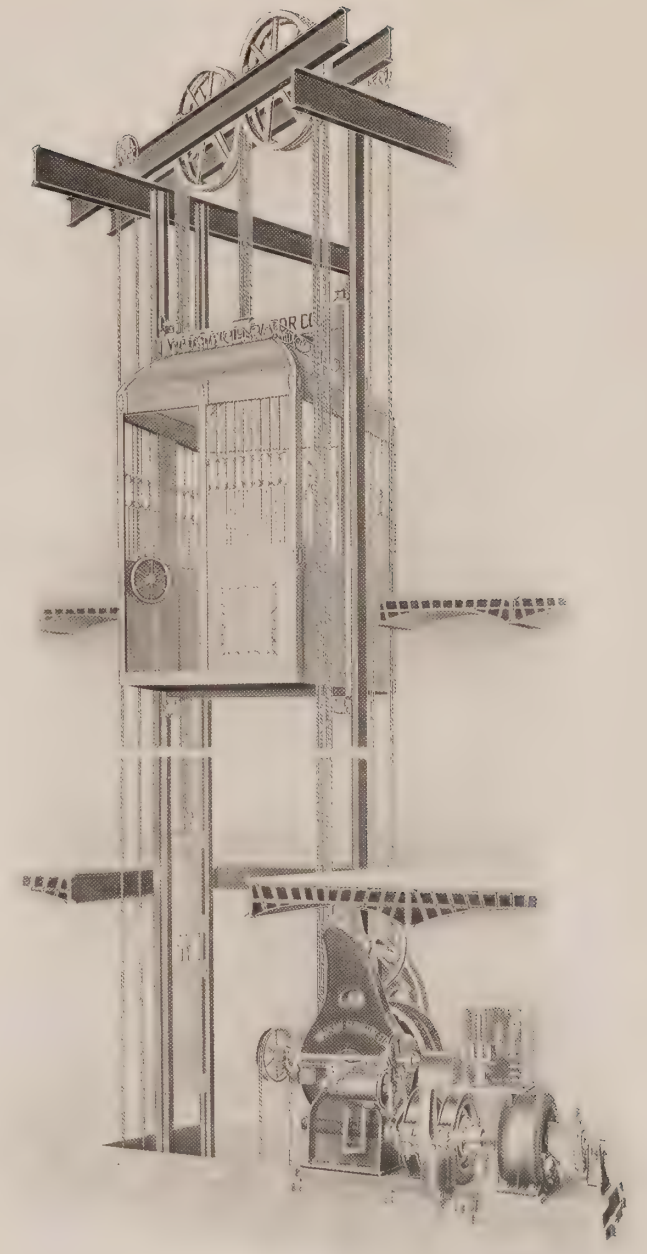
Operated by Pilot Wheel

THE cut on the next page illustrates one of the many ways of arranging our Type E Electric Winding Engine in connection with the cage and stationary adjuncts of a Direct Connected Electric Passenger Elevator.

Here, the Winding Engine is shown set on a foundation adjacent to the hatchway in the lower story. It may, however, be set on either side, or in rear of same, where the surroundings call for such an arrangement, or it may be placed on one of the upper floors if desired, provided the floor is sufficiently strong and rigid, or if preferred it may be set directly over hatchway on steel beams.

This illustration shows steel overhead beams for the cable sheaves, and wood guides. We also build them with steel guides where these are preferred, or we make the entire construction of wood, also with or without governor safety, with Pilot Wheel, as shown here, or with Lever Control, or with Electric Control. In fact, the modifications that can be made to suit the surrounding conditions and the wishes of the purchaser, are too many to enumerate in this brief description.

Whatever the arrangements may be, we are always careful that nothing but the best, both in material and workmanship, enters into the construction of our elevators. Our long experience in this line of work and the fact that we devote all our time and energies exclusively to the manufacture of High Grade Elevators, insures the purchaser an equipment that for durability and smoothness of operation, can not be surpassed.



DIRECT
CONNECTED ELECTRIC
FREIGHT ELEVATOR
WINDING MACHINE
IN BASEMENT

Direct Connected Electric Freight Elevator

Winding Machine in Basement

BELOW we are pleased to show you our latest improved Direct Connected Electric Freight Elevator, with Winding Machine in Basement.

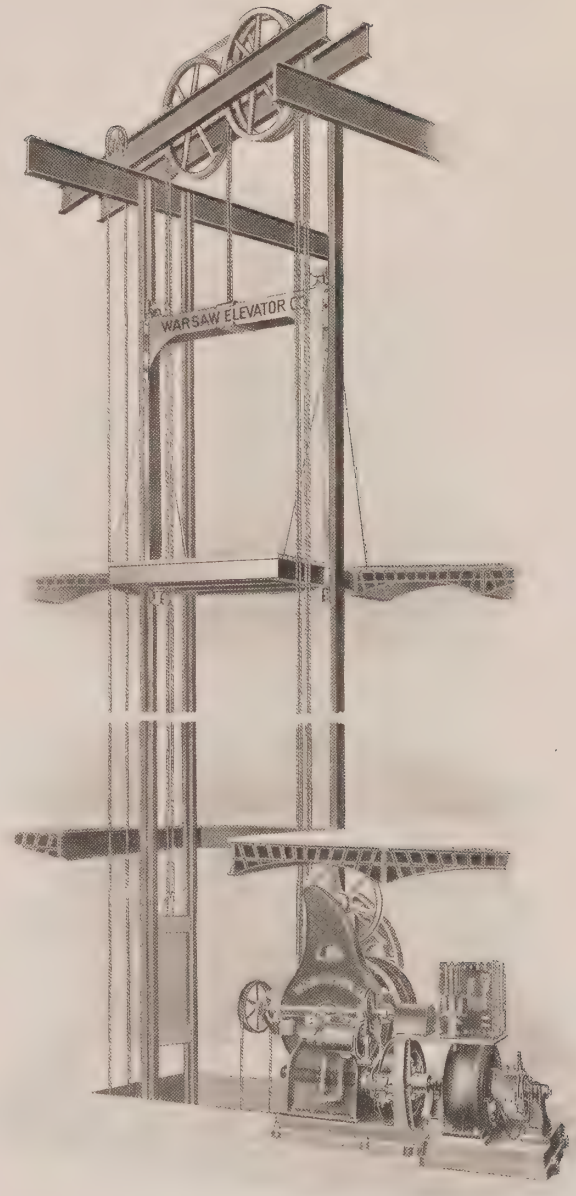
The cut shows the outfit provided with speed governor (which will immediately stop the car if, for any reason, it should attain too high speed), also with one brake; the whole outfit being very compact and located in such a way that it is possible for an inspector or engineer to have access to all parts.

The cut shows the Winding Machine placed on one side of hatchway, but, if desired, it may be changed either to the rear or opposite side, or, if preferred, it may be placed on any of the upper floors or set directly over the hatchway on steel beams. We furnish this with either steel or wood guides, and if desired the car may be enclosed on either one, two or three sides.

We furnish these elevators in capacities from 1,000 to 10,000 lbs. and at speeds varying from 60 to 150 ft. per minute.

We show in this cut a Cable Control for operating the car. If desired we can furnish either Lever, Hand Wheel or Electric Control instead.

All parts of this elevator are constructed of the very best material and there is no better workmanship on any elevator made.


WARSAW ELEVATOR

DIRECT
CONNECTED ELECTRIC
PASSENGER ELEVATOR
WINDING MACHINE
OVERHEAD IN HATCHWAY

Direct Connected Electric Passenger Elevator

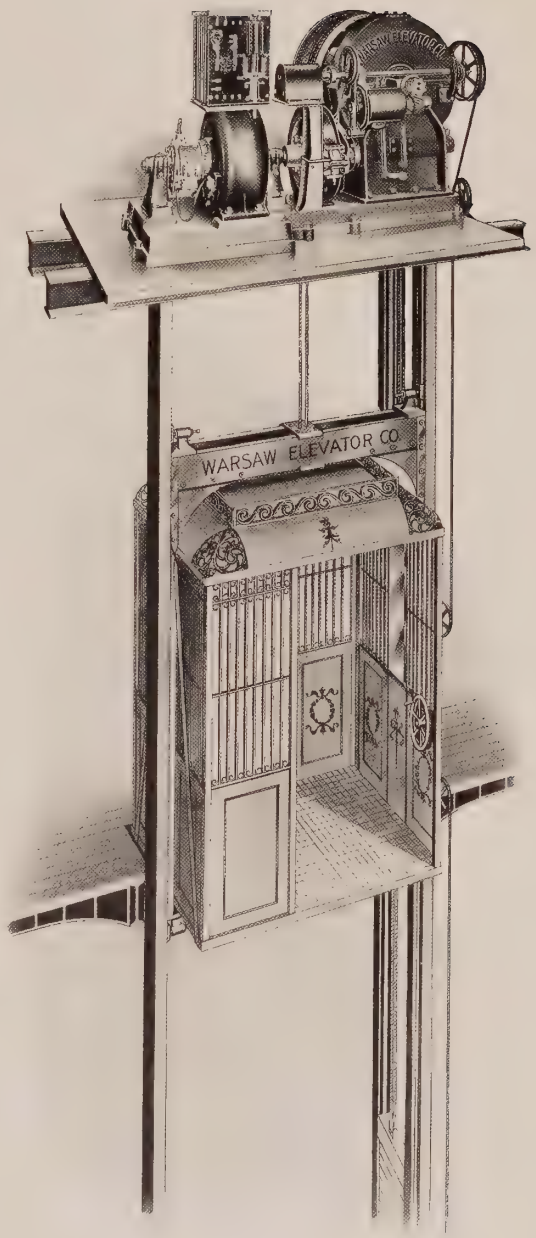
Winding Machine Overhead in Hatchway

HEREWITH we illustrate one of our most desirable types of passenger elevators.

The winding machine overhead in the hatchway possesses many advantages, every part of it being contained within the hatchway. This precludes the necessity of using any of the floor space in the building. The cables leading directly from the hoisting drum to the cage eliminates a large percentage of the friction, resulting in a saving of electric current.

We build this type Entirely of Steel, Part Steel and Part Wood as per illustration, or of Wood throughout, as desired; also with Lever Control, Hand Cable Control or with Pilot Wheel as shown here.

The Winding Machine, a most important feature, is very substantially and carefully built, the Worm Gear being of Phosphor Bronze with the teeth cut from the solid, and the worm and shaft forged in one piece from best crucible Steel and the thread also cut from the solid metal by Special Machinery; Worm Shaft bearings Bronze Bushed, Drum Shaft Bearings best Babbit Lined, all Journals of Polished Steel, Ball Bearing Thrust, Powerful Leather Lined Brake, Latest Type of Safeties, in fact the best of everything necessary for a lasting and satisfactory service.


WARSAW ELEVATOR CO.

TYPE E
DIRECT CONNECTED
ELECTRIC WINDING MACHINE

New Type E Direct Connected Electric Winding Machine

THE cut on opposite page represents our new Type E Direct Connected Electric Winding Engine reproduced from photo of machine.

This machine is made in all sizes from 1,000 pounds to 10,000 pounds capacity, as desired, and all speeds, and is built to be operated either by hand cable, lever or pilot wheel device, or by electric control with hand lever switch in car. It is arranged to be fitted with single or double sets of brakes, same being operated either mechanically or electrically as desired. The cut shows one mechanical and one electrical brake, and in addition to these the machine is so designed that a dynamic electric brake can be furnished with either or both of them.

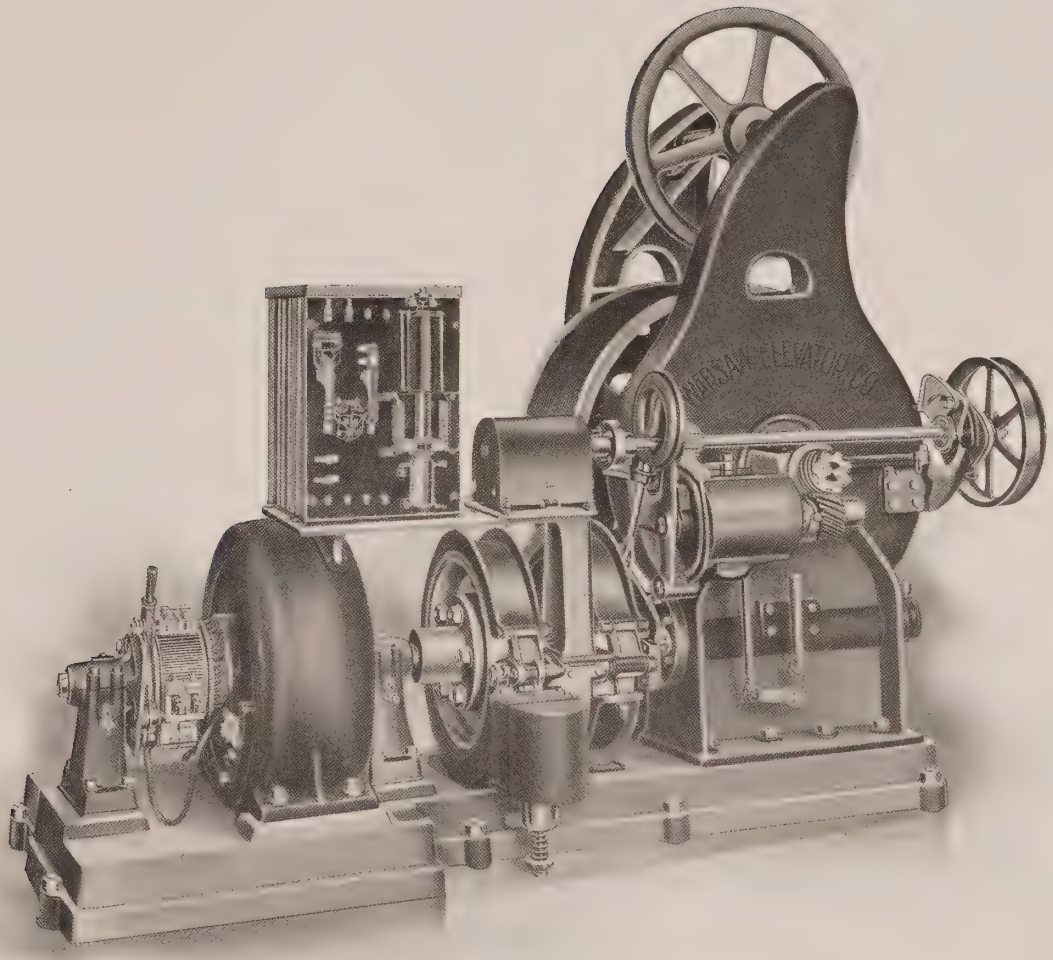
The gear is of phosphor bronze, the teeth being accurately cut from solid stock.

The worm and worm shaft are in one piece, and are cut from one solid crucible steel forging, thereby obviating all danger of worm working loose on shaft, or of loosening keys.

All bearings for the worm shaft are bronze lined, and for slower moving parts of the best anti-friction metal.

A very important feature of a machine of this kind is the thrust bearing, which in the case of this machine is of the ball bearing type, the steel balls running between accurately ground hardened steel plates and is contained in a separate oil chamber and so arranged that the lost motion caused by wear in either direction can be at any time adjusted by one operation.

This machine has given universal satisfaction wherever it has been installed, and nothing but the very best material is used in its construction, and the workmanship throughout is of the very finest. Where a strictly high grade machine is desired, we can recommend it in every way, as it is exceptionally smooth running, with gentle stops, and very simple in construction, and very few parts to get out of order.



DIRECT-CONNECTED
ELECTRIC FREIGHT ELEVATOR
OVERHEAD WINDING ENGINE

Direct Connected Electric Freight Elevator

Winding Engine Overhead in Hatchway

OUR Direct Connected Electric Freight Elevator, with winding Engine located overhead in hatchway, is shown on page below.

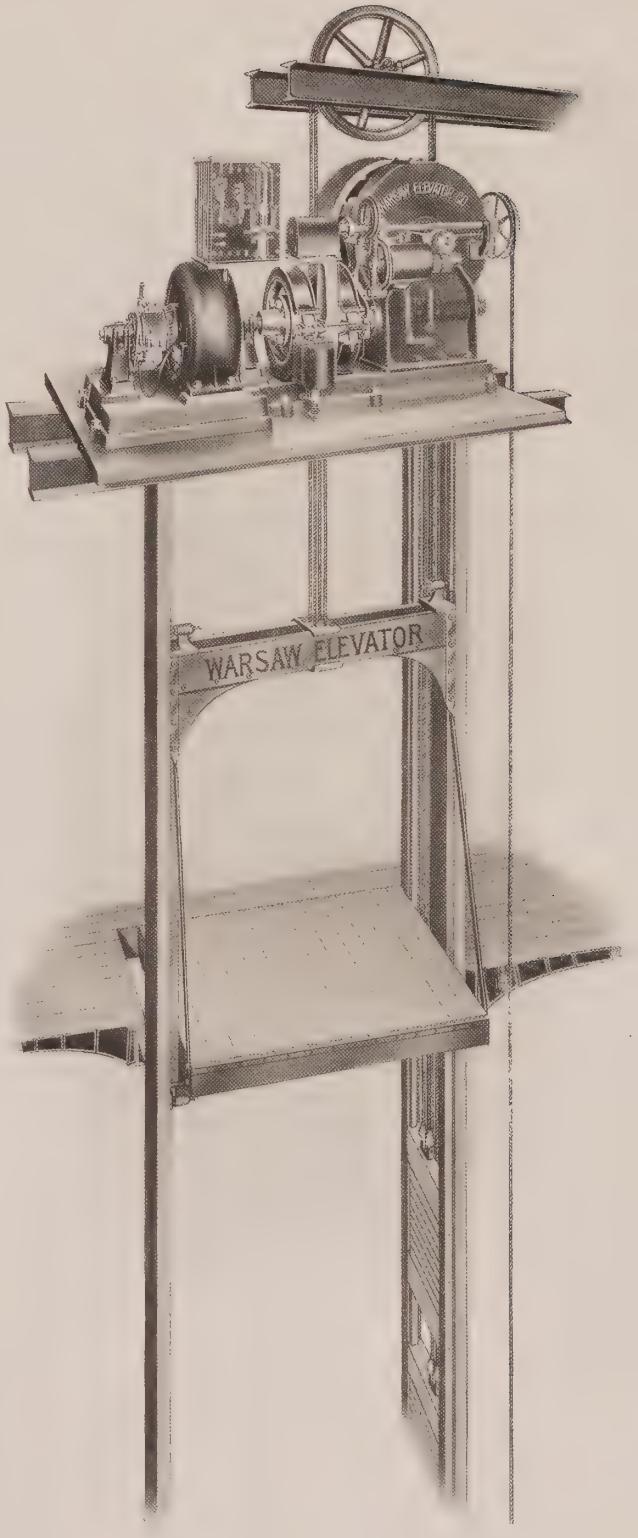
This arrangement has the advantage of a more direct lead for the cables from the cage and the counterpoise weight to the hoisting drum, and also of economy in space. The elevator being entirely within the hatchway, valuable space in the building, which otherwise would be occupied by the engine and cables, is available for other use.

In cases where the cupola is covered with a skylight, the floor surrounding the winder can be iron grating, permitting the passage of light to lower part of hatchway. Provision should be made for easy access to the winding engine from upper floor of building.

We build these elevators of capacities varying from 1,000 to 20,000 lbs., and to run at speeds from 50 to 150 ft. per minute. Also with any style of control desired, Hand-rope, Lever, Pilot Wheel or Electric Control.

We make these elevators of entire Steel construction, including cage, or with Wood Guides and Cage, as the requirements of our patron may indicate. Where desired we also furnish guards on the cage or platform, made in Wood, Steel or Wire-work.

All parts of the Elevator are very carefully made, nothing being omitted which long experience has shown to be essential to their durability and successful operation.


WARSAW ELEVATOR

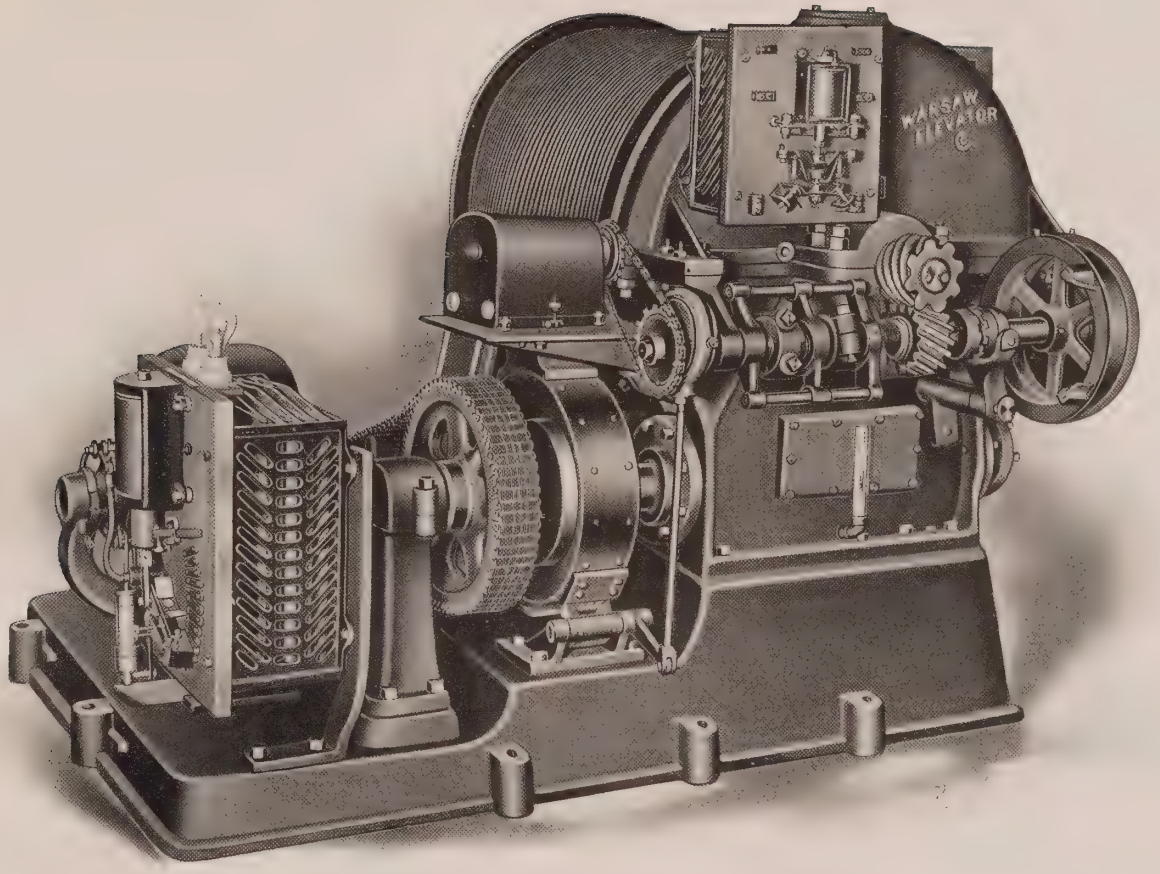
Direct Connected Dumb Waiter

Push Button Type

ILLUSTRATION on the following page shows our new type of worm gear direct connected push button dumb waiter as installed complete in a building of three stories. This type of dumb waiter can be furnished for any number of stories, from two to twelve or more as required, and the car travel at any desired speed; we, however, recommend that the car speed shall not be over 90 to 100 feet per minute for this type of dumb waiter. This outfit is entirely automatic in its operation, the operator simply pressing the button and the machine and electrical apparatus does the rest.

We can furnish this outfit in two types of control, one being the full "call and send" type, having a bank of push buttons located on each floor of building, the operator in this case being able to call the car from, or send the car to any other floor. The other type of control has a bank of push buttons corresponding to number of floors, located at one floor only, and at all of the other floors there are two buttons. The operator at the central control floor can send the car to, or call the car from any other floor, but at all other floors they can only call the car to that floor and send it to the control station. The doors into the dumb waiter shaft at each floor may be provided with switches to cut current so that the pushing of a button at any floor will not move car until all doors are closed. A colored electric light may also be located, at each floor, if desired, to show when car is at, or passing that floor. The whole outfit is very simple in construction and operation, and by having all doors closed before the dumb waiter can be operated, avoids every chance of accident. The car may be made of steel or wood, with hinged or movable shelves of any desired size. The winding machine may be placed overhead as shown in cut, or on any floor below. We, however, recommend overhead installation wherever possible.

We manufacture in all capacities up to 500 lbs.



Above cut represents our latest improved Floor-type Worm Gear Electric Elevator Winding Machine, with Silent Chain Connection between Moto and Machine. We manufacture this type in all sizes up to 12,000 pounds capacity and it can be used either with or without Cast-iron Bed Plate under Machine The Silent Chain we use is the very latest improved, being cut from steel plates, and the gears are also very accurately machine-turned. This Machine can b used very successfully up to about 75 feet per minute, and is designed to either set on floor or directly over well hole.

Only the best of material and workmanship are used in its construction.

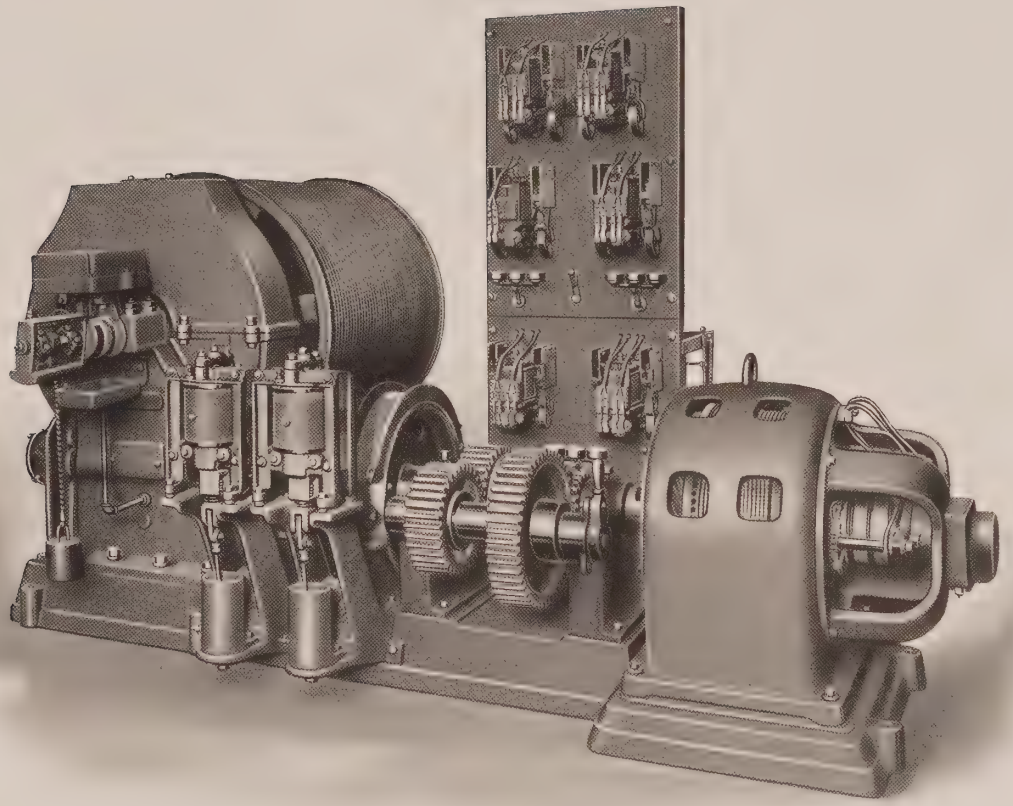
DIRECT CONNECTED ELECTRIC PASSENGER ELEVATOR WITH BACK GEARING

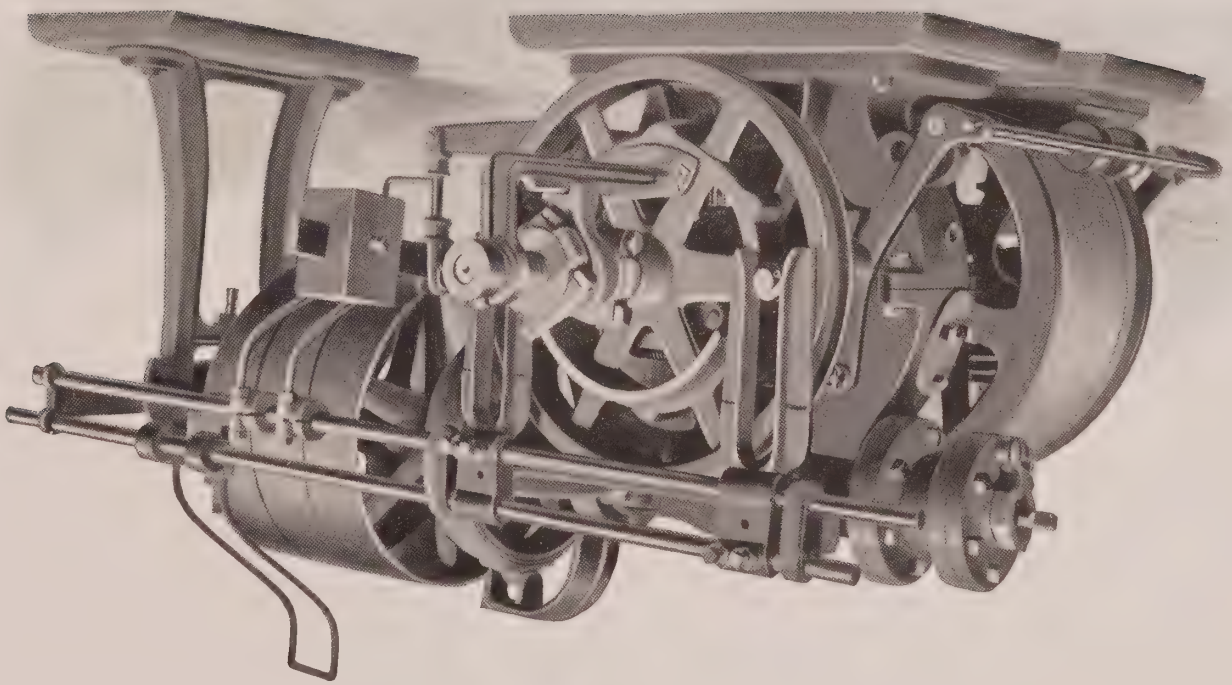
Direct Connected Electric Passenger Elevator with Back Gears

WE many times have inquiries from customers who desire to have their Passenger Elevator so constructed that by shifting a lever the machine could be arranged to carry heavy loads, such as safes, etc., and we illustrate on following page our latest improved Full Magnet Control Elevator, so designed. It is but a moment's work to change machine for these loads, which of course makes a corresponding reduction in car speed. Gears are machine-cut from best material and are heavy construction. Illustration shows an Alternating Current Elevator, but we can also furnish for direct current and with one or two speeds.

Machine is heavy construction throughout and equipped with two Electric or Solenoid brakes, which are applied automatically when current is cut out and are very powerful. Machine is also equipped with Automatic Electric Limitation stops, which cut out current at terminal landings. It is also provided with Automatic Electric Slack Cable stop, which operates immediately on the slacking cables.

We wish particularly to call your attention to the fact that the whole machine, including motor and back gears, is mounted on one solid cast iron bed plate, making strongest possible construction.





DESCRIPTION

ON the front page of this circular we show the very latest improvement in a worm-gear winding machine for freight and slow-speed passenger work, the same being arranged for shifting belts, as shown in cut; or by a slight change and without extra charge, we can arrange the winding machine to run by a reversing motor and controller, using either a belt or silent chain, as preferred. These winding machines are made in all sizes, and provided with proper diameter of drums and pulleys, all depending on the conditions, speed of counter shaft, motor, etc., also the load to be carried. As you will see in cut, the winding machine is arranged to hang to ceiling, which we have found in our wide experience is the best, as it is then up out of the way, but still convenient to oil and adjust; we have also arranged so that were it preferred and conditions are right, it may be suspended directly over the hatchway.

This machine, in all sizes, is of extra heavy construction and designed to withstand the extreme abuse to which an elevator is usually subjected, and having made a specialty of this class of work for a great many years, we feel that our improved machine, which is provided with every known and improved device for safety, will meet with the hearty approval of elevator users and critics.

The following brief specifications will show its almost faultless construction:

WINDING MACHINE is of the worm-gear type, the worm and gear being enclosed in an oil-tight cast-iron housing, which protects same from all dust and dirt and assures constant lubrication to all the parts contained in case; also ample means have been provided for cleaning and examination.

GEAR is made of phosphor bronze, extra heavy, with accurately machine-cut teeth from solid stock, and runs without noise or jar.

WORM:—The worm and the worm shaft are cut from one solid special crucible steel forging, accurately turned to fit teeth in gear. By having this construction there is no possible chance for worm to work loose on shaft and so cause accident.

LIMITATION STOP:—Winding machine is provided with limitation stop to prevent car going beyond a point of safety at top or bottom landings. These stops are specially constructed of steel, to avoid breakage and accidents.

SLACK CABLE STOP:—Winding machine is provided with our Automatic Slack Cable Stop, which prevents cable from getting out of place or unwinding from drum, should car be obstructed in its descent.

BELT SHIFTER:—Belt shifter is very simple in construction, amply strong and not liable to get out of order, and is arranged so that while either belt is being shifted to the tight pulley, the other is at rest. Our new Central Stop prevents shifting belts too far and reversing the machine. The clips to which belt shifters are fastened are made of steel.

LOOSE PULLEYS:—Loose pulleys are made with long hubs with large chambers for lubricant and are bushed with bronze, and will run a long time without attention.

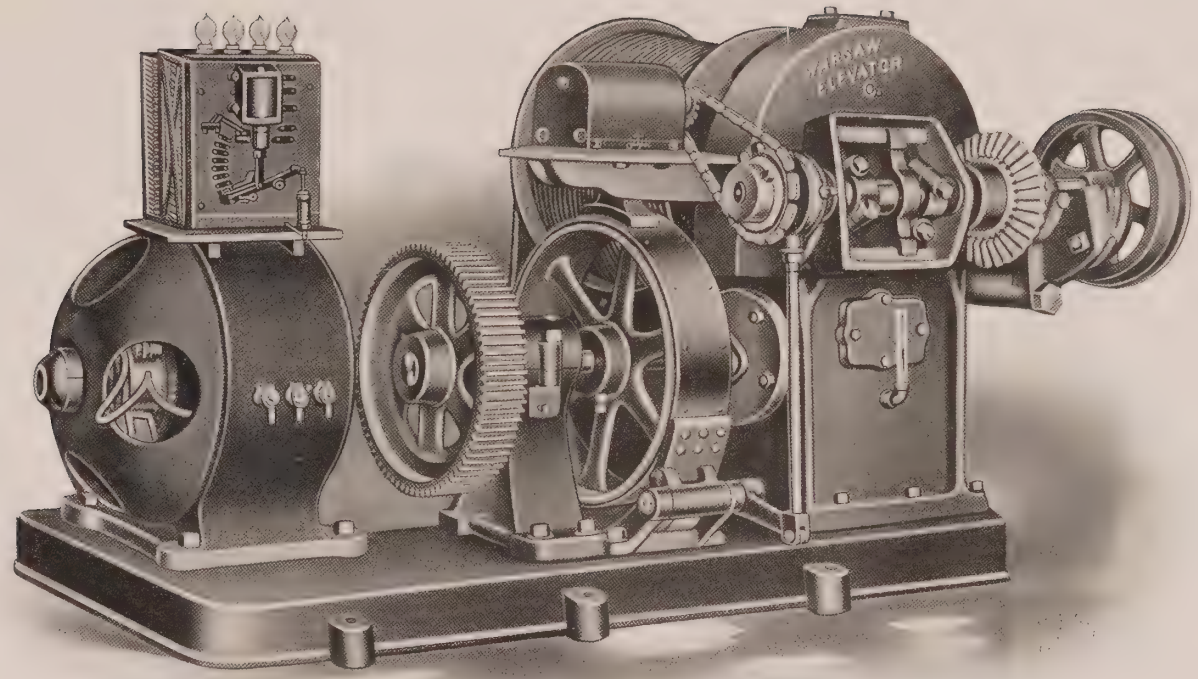
WINDING DRUM:—Winding drum is spirally grooved in lathe to prevent cable from chafing and wearing.

SHIFTING FINGERS:—Shifting fingers are made of steel, securely fastened to steel shifter bars.

THRUST BEARING is in a separate chamber and is provided with alternate steel and bronze discs reducing all friction to lowest point. We can also furnish this machine with a double ball-bearing thrust where desired.

Also it is so constructed that whether the load or the counter-weight is the heavier, the friction is not increased, a double bearing being provided, which can easily be adjusted to take up the wear.

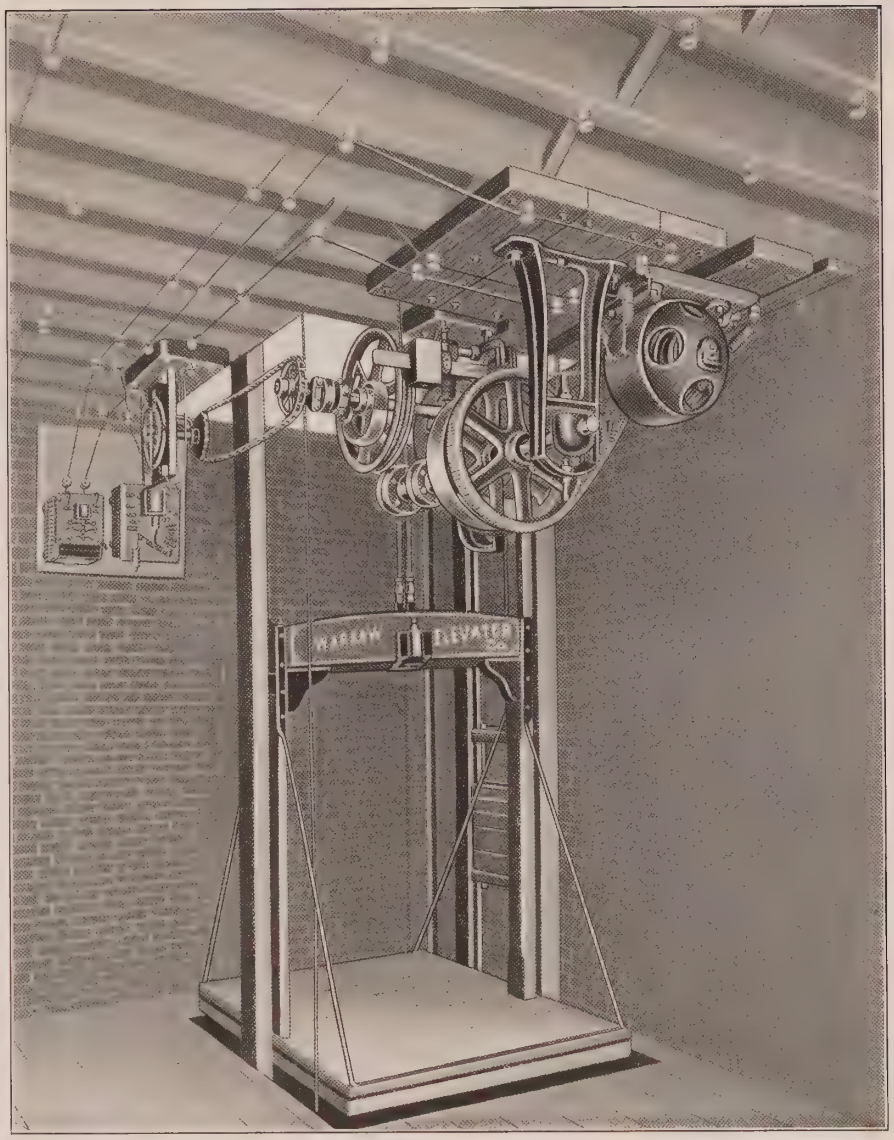
BRAKE:—The brake is of steel band type, leather lined, and is very simple and positive in action, the operation of same being automatic with shifting of belts or current.



ABOVE illustration shows our new Floor Type Worm Gear Electric Winding Machine with spur gear connection between motor and machine. Th machine is made in all capacities and can be used either with or without cast iron bed plate under machine. We can also furnish silent chain connecti between motor and winding machine instead of gears if desired. Where gears are used we furnish a raw-hide or hard fibre pinion on motor shaft and a accurately machine-cut gear on worm shaft.

Only best of material is used in construction and we will guarantee workmanship second to none.

For an ECONOMICAL, SIMPLE and DURABLE machine there is none better made. Machine can be set over well hole or on any floor of buildi as desired.

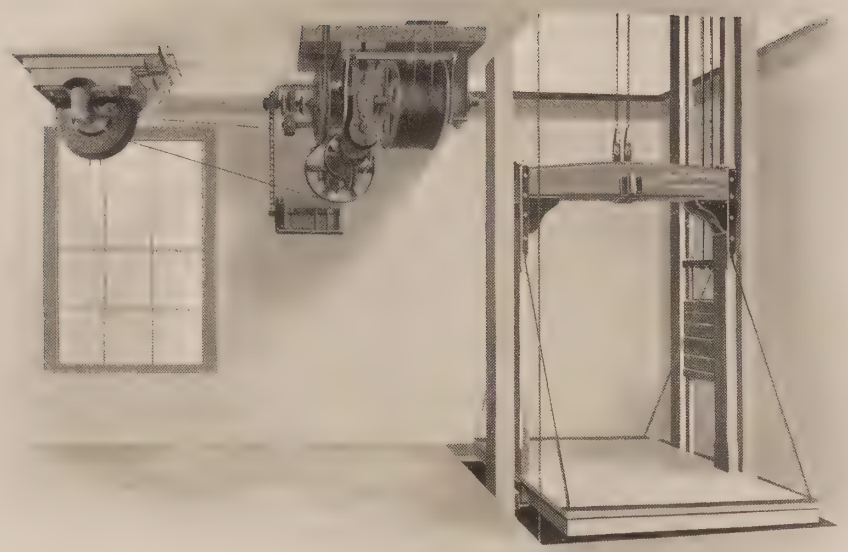


THIS illustration shows one of our Silent Chain-driven Electric Freight Elevators, as erected complete in a building, with motor and machine on ceiling.

Notice carefully how compact the whole outfit is and inasmuch as motor, controller and winding machinery are all of ceiling type, very little room is taken up, except for the cables, which pass up through the building.

The one shifting cable which is shown at side of car, starts and stops motor and winding machine at same operation, so there is no lost current.

Winding machine also has slack cable and limitation stop of very latest construction. We have all capacities of this machine.



THIS illustrates our Single Belt Electric Elevator erected complete, with reversing Motor and Controller. Motor and machine are here shown on ceiling but they may be placed on floor if desired, or machine may be on ceiling and motor on side wall or floor. The pulling of shifting cable, passing down at side of car, starts motor and load at one operation. We build these with both Wood or Steel cars, and with Hard Maple or Steel Guides, and if desired the car may be enclosed on sides to protect from accident. We recommend that the Counter Weight (as shown in cut), be attached, where possible to back of Drum on Machine and to fully equal weight of car. We manufacture these in all capacities, and both machine and car are provided with latest improved safety devices. If desired we will furnish detailed blue prints of all parts.

DIRECT CONNECTED
ELECTRIC FREIGHT ELEVATOR
INTERNAL GEAR

DESCRIPTION

THE illustration shown on the opposite page is our latest type of direct-connected freight elevator machine, internal gear. The machine and motor all mounted complete on a heavy cast-iron bed-plate which is all cast in one piece. We manufacture these machines in capacities of from 6,000 to 10,000 pounds, and the following gives a brief description of the general points in connection with it.

WINDING MACHINE is of the direct-connected worm gear type. The worm and gear are all enclosed in an oil tight cast iron housing, which protects from dust and dirt, and the worm case being filled with oil provides for lubrication without frequent attention. We have provided ample means for cleaning and examining the worm and gear when desired.

GEAR is of the very best phosphor bronze, with teeth accurately machine-cut by one of the very latest improved gear-cutting machines on the market to-day, and the teeth of the gear are cut from solid stock and will run without noise and jar.

WORM:—The worm and worm shaft are in one piece and are cut from one solid special crucible steel forging and will accurately fit the teeth in gear.

MOTOR:—The motor is direct-connected to the worm shaft by a heavy coupling, machine turned, and we can furnish this machine with either an alternating current or direct current motor as desired.

BED PLATE: The machine and motor are all mounted on one solid cast-iron bed plate, which is in one piece and accurately machined for motor and winding machine.

LIMITATION STOP:—The winding machine is provided with limitation stop, which will automatically prevent the car from going beyond a point of safety at the top and bottom landings independent of the operator.

SLACK CABLE STOP:—The winding machine has the very latest improved automatic slack cable stop, which prevents the cables from unwinding or getting out of place on drum should the car be obstructed in descent.

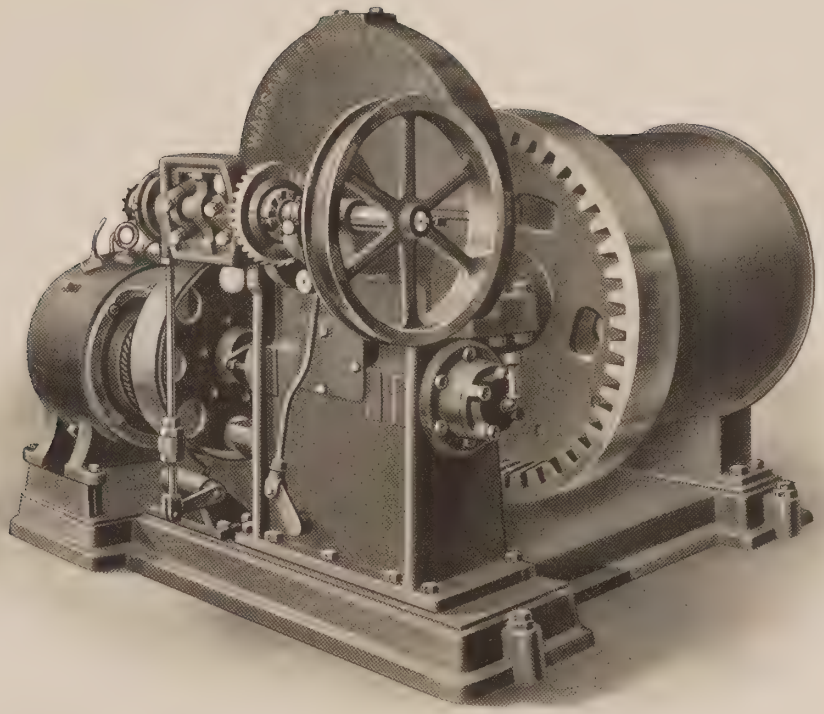
DRUM:—The drum and internal gear are securely bolted together, the teeth in gear being extra heavy to take care of heaviest loads for capacity of machine.

THRUST BEARING:—The thrust bearing is the very latest improved double ball bearing which will reduce all friction to the lowest point.

BRAKE:—The brake is extra heavy and powerful, and this machine is arranged for either mechanical or electric brake as desired.

The object of the internal gear is to reduce car speed as much as possible for heavy loads, and in some cases where it is impossible to get a sufficiently low speed motor, and it is desired to have a very low car speed for heavy loads, the best way this can be accomplished is with the duplex or internal gear.

We can furnish detailed prints showing the measurements of various parts of machine if desired.



WORM GEAR
FLOOR WINDING MACHINE,
SHIFTING BELT TYPE

DESCRIPTION

THE cut on opposite page of this circular shows our Latest design Worm Gear Winding Apparatus of the Floor type, for freight service; and while this cut shows the machine arranged for two shifting belts, it can when circumstances require, be arranged to be operated in connection with a reversing motor, either by one belt, a silent chain, a cut gear and pinion, or by direct connection to the motor shaft by coupling, as preferred. We can also furnish this machine either with or without a cast iron bed plate, so that it can be placed on beams or concrete foundation in basement or any floor of building, or if the construction will permit, it can be placed on steel or wood beams directly over hatchway.

We manufacture these machines in all sizes and of extra heavy construction, being provided with proper size of drums and pulleys to give desired speed to car.

This machine is very compact and simple and is particularly designed to stand all kinds of abuse to which an elevator is usually subjected and we feel safe in making the statement that there is not a better constructed or simpler machine made, it being provided with every known SAFETY DEVICE as the following description will show.

WINDING MACHINE is of the worm gear type, the worm and gear being enclosed in an oil tight cast iron housing, which protects same from all dust and dirt and assures constant lubrication to all parts contained in case; also ample means has been provided for cleaning and examination.

GEAR is made of phosphor bronze, extra heavy, with accurately machine-cut teeth from solid stock and runs without noise or jar.

WORM:—The worm and worm shaft are cut from one solid special crucible steel forging, accurately turned to fit teeth in gear. By having this construction there is no possible chance for worm to work loose on shaft and so cause accident.

LIMITATION STOP:—Winding machine is provided with limitation stop to prevent car from going beyond a point of safety at top or bottom landings. These stops are specially constructed of steel, to avoid breakage and accidents.

SLACK CABLE STOP:—Winding machine is provided with our Automatic Slack Cable Stop, which prevents cable from getting out of place or unwinding from drum, should car be obstructed in descent.

BELT SHIPPER:—Belt shipper is very simple in construction, amply strong and not liable to get out of order, and is arranged so that while either belt is being shifted to the tight pulley, the other is at rest. Our new Central Stop prevents shifting belts too far and reversing the machine. The clips to which belt shippers are fastened are made of steel.

LOOSE PULLEYS:—Loose pulleys are made with long hubs with large chambers for lubricant and are bushed with bronze, and will run a long time without attention.

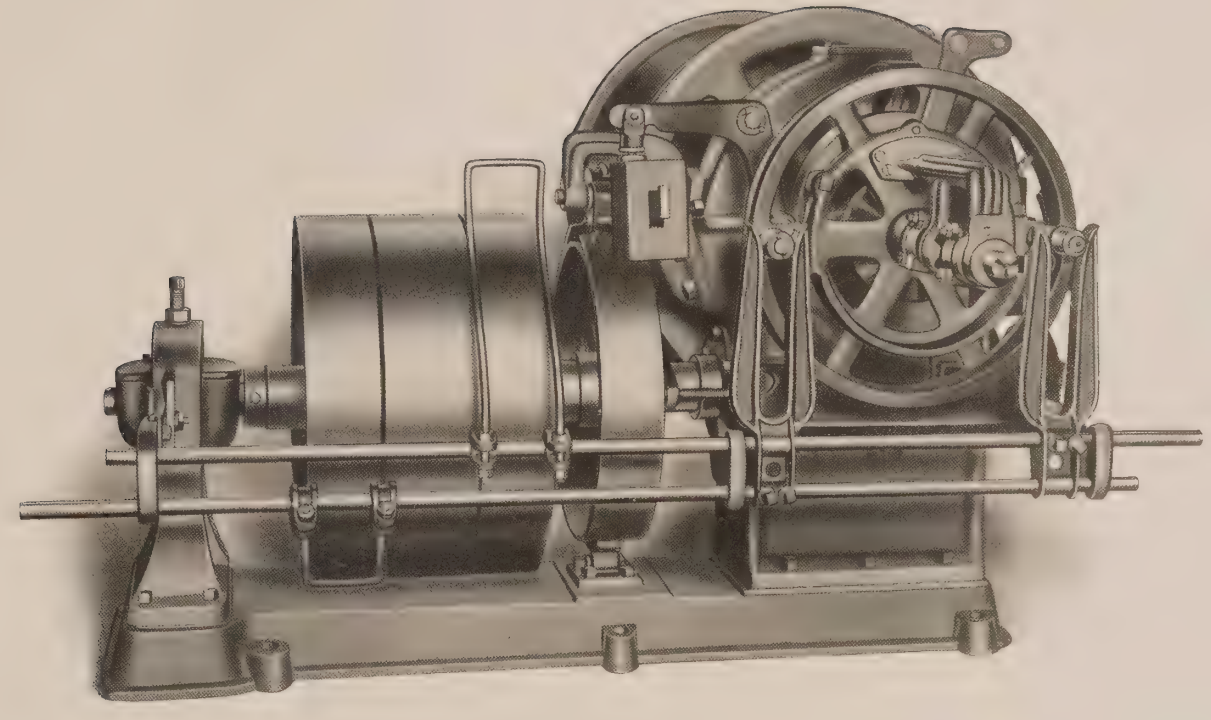
WINDING DRUM:—Winding drum is spirally grooved in lathe to prevent cable from chafing and wearing.

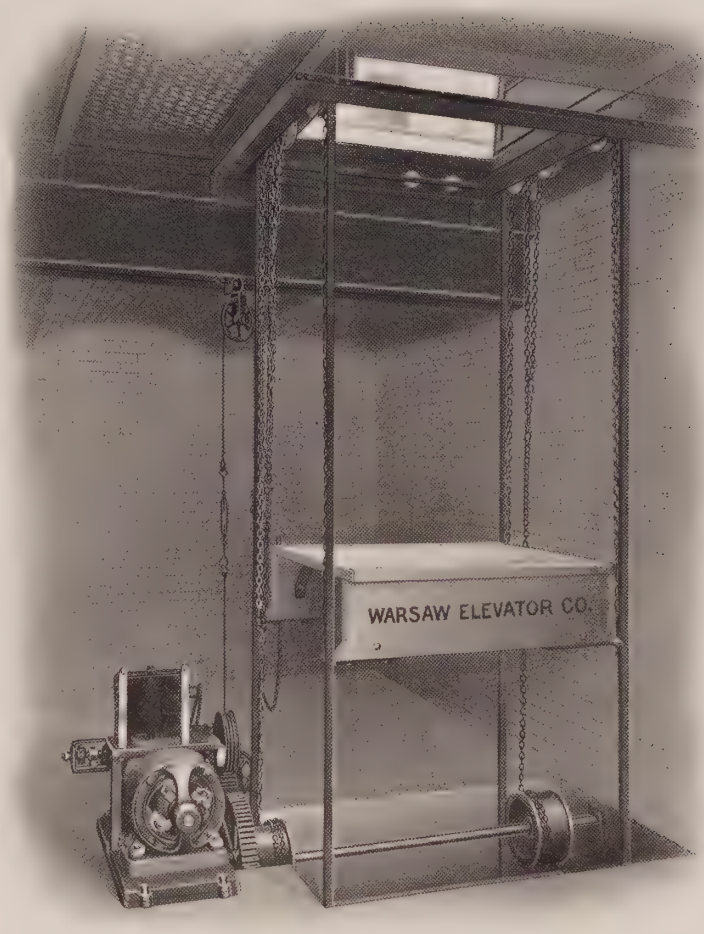
BELT FINGERS:—Belt fingers are made of steel, securely fastened to steel shipper bars.

THRUST BEARING is in a separate chamber and is provided with alternate steel and bronze discs reducing all friction to lowest point. We can also furnish this machine with a double ball bearing thrust where desired.

Also it is so constructed that whether the load or the counter weight is the heavier, the friction is not increased, a double bearing being provided, which can easily be adjusted to take the wear.

BRAKE:—The brake is of steel band type, leather lined and is very simple and positive in action, the operation of same being automatic with shifting of belts or current.





THE above cut shows our new type Direct Connected Electric Sidewalk or Basement Hoist, using direct current motor. We can also furnish this same outfit and use alternating current motor.

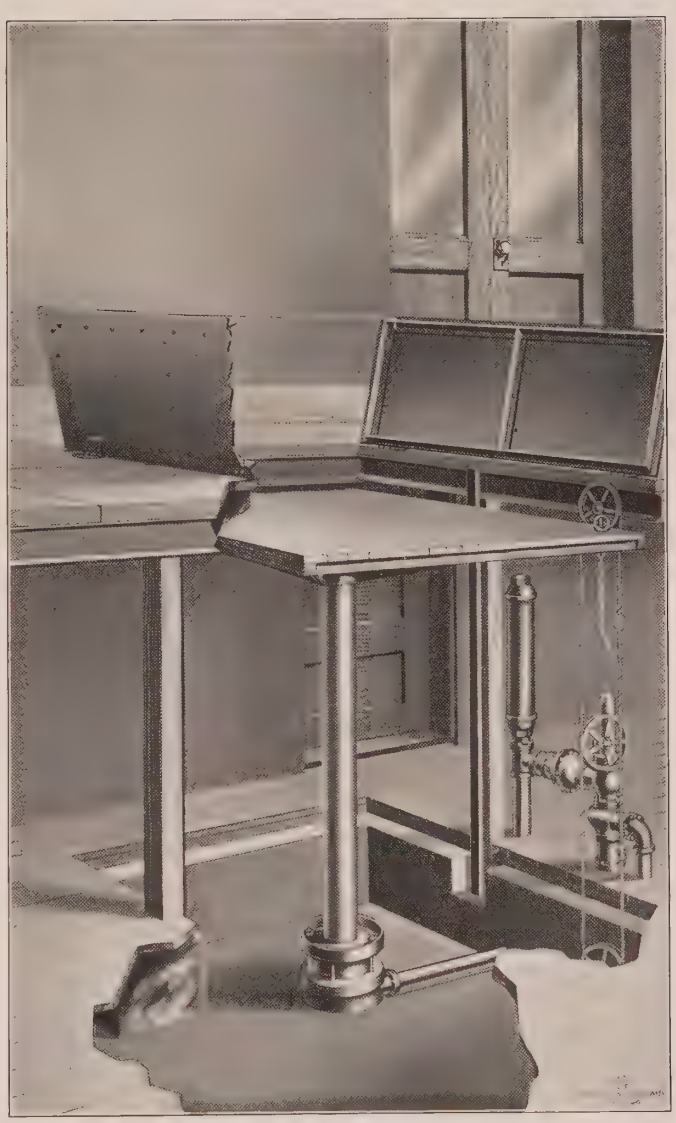
The car is built of very best Hardwood and is well braced underneath and has steel strike plates on entrance sides. Please notice particularly that the car is suspended at each corner by a heavy cable chain. We also make this with car suspended on each side or at the four corners by a cable.

At each corner or in center we furnish steel posts to guide the car in going up and down.

The machine is of the enclosed worm and gear type, which are running in oil. It is also provided with automatic top and bottom stops which prevent car running above upper or lower landings, and for a further factor of safety we also provide a ring passing through platform which automatically stops car at top and bottom landings, this ring also allowing the operator to start the elevator from the street or upper floor level.

The machine, motor and controller are all mounted on a cast iron bed plate cast in one piece, making very compact and rigid construction.

The motor is of special elevator type for severe service and is direct connected to the worm shaft, all parts being thoroughly insulated. We have yet to see a more compact or better constructed hoist, in every detail.



The above cut shows our latest improved **PLUNGER HYDRAULIC BASEMENT OR SIDEWALK HOIST,** which will be readily seen is very simple in construction, as there are very few parts, and it is equally simple of operation. The plunger under car descends in the ground, whatever the rise of the car may be, and the water pressure to raise the load may be either secured from street main or from a pressure tank in Building as desired. We make the platform of any size or construction to suit customers' requirements, and if preferred it may be arranged to run above the Sidewalk or Floor level to allow of unloading heavy boxes or bales easily from Wagon or Truck. We can furnish the Guides and Car in either steel or all wood construction as may be desired. We also many times construct car with forged bow or stand on same to open and close the doors at first floor automatically as car goes up and down. Our construction is such that the car is stopped automatically at top and bottom landings, entirely independent of the operator. We manufacture these in all sizes and capacities.

ELEVATOR PLATFORMS
PLAIN AND WITH ENCLOSURES

DESCRIPTION

THE illustrations on the opposite page show a very few of our numerous types of Combined Freight and Passenger and also Freight Platforms, which we recommend for use where it is desired to have the very latest type of car with safety devices.

Cut No. 1, in center of page, shows the plain car without enclosures which, while it has the very latest improved safety devices the same as the others, is used mostly where a cheaper type of car is desired and where large boxes or freight only are to be carried. In all cases where the work is bulky or light and small, or where car is to be loaded to its capacity, we advise an enclosure on one, two or three sides as shown in cuts Nos. 2, 3, 4 or 5. The style of enclosure is largely governed by work required, as cars Nos. 4 and 5 can be used as combined freight and passenger elevators if desired.

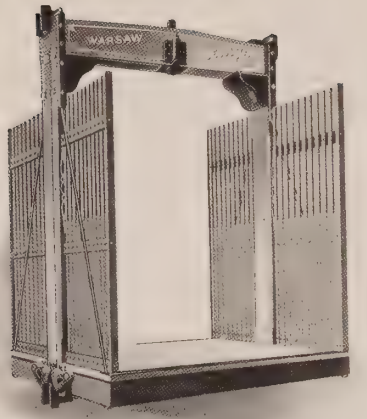
These cars are all made in steel or wood and the enclosure work may be of wire, sheet steel or wood wainscoting or slat work, and of any height desired.

Our latest improved safety device is attached to each car and at underside of same, and is of the jaw or cam type, and will positively hold load at any point if cables should break or become loose at crosshead.

All cars are heavily braced and constructed and finished as desired.

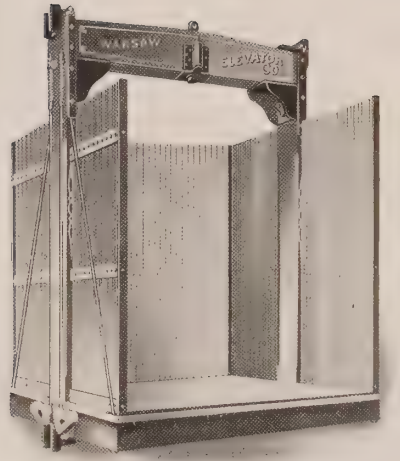
There are times when it is desired to enter car on two sides at right angles to each other. In that case a corner post car is preferable instead of the side post as here shown, this corner post car being shown on another sheet.

We make these in all capacities from 2,000 to 16,000 pounds.



No. 2

No. 1



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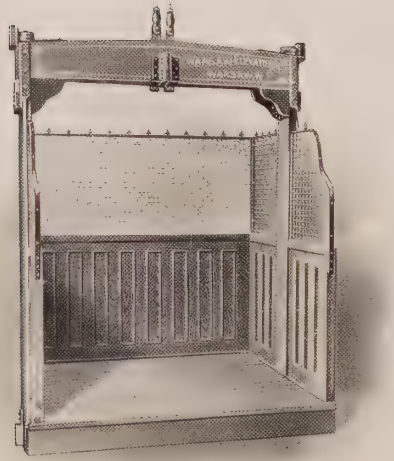
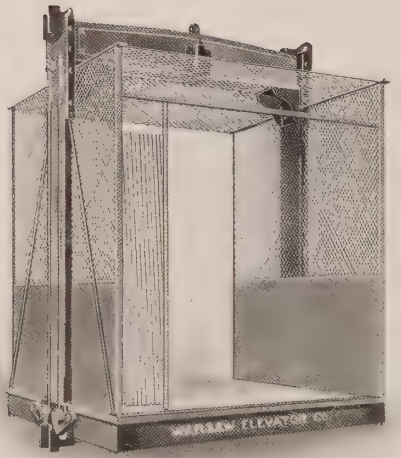


No. 4



No. 5

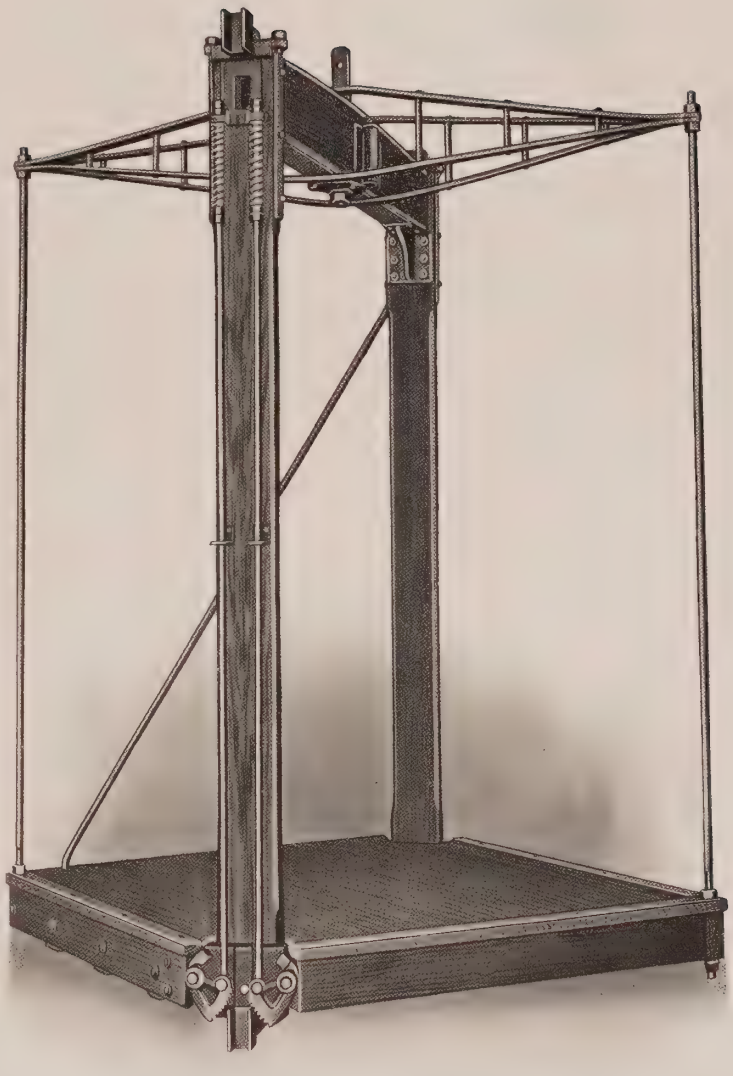
THE car here illustrated is constructed more particularly for heavy work or where same is extremely long, front to back, such as for Automobiles, Wagons, Carriages, Storage Warehouses, etc.

Usually where cars are 12 feet long or over, they are double braced as shown in cut, which supports them perfectly, not allowing car floor to sag at any point. While this construction costs a little more, we find most of our customers are willing to pay for it, as in the long run it is more satisfactory.

The height between car floor and overhead cross beam can be as desired for material to be carried. We find ordinarily that about 9 feet in the clear will accommodate most everything, but this may be changed if desired.

Notice particularly that our car safeties are located underneath car platform, which gives very rigid construction if safeties are ever brought into action by breaking of cables.

We make these cars any size or capacity.



THE above cut shows our latest improved car of the CORNER POST type. This construction of car is necessary when it is desired to enter on two or more sides which are at right angles to each other.

Notice the heavy steel forged truss on top of car, which supports the two corners, also the steel forged brace running from standard to corner of car.

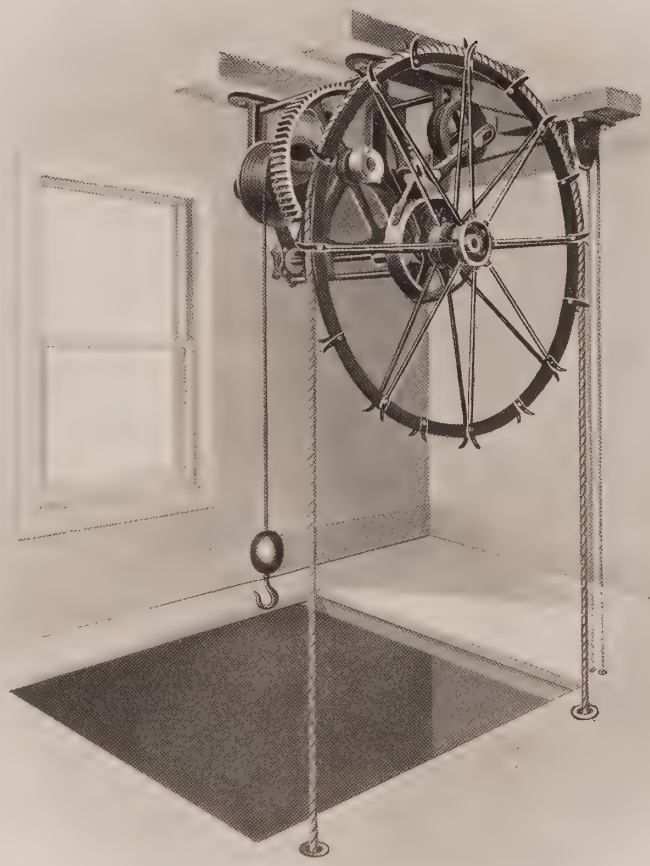
With the above construction you can enter car on three sides, or if absolutely necessary the brace can be omitted and you can then enter on four sides, although we do not advise this, as the car should have one brace anyway.

This car is equipped with safety catches which prevent it from falling in case the cables should break, these safety catches being placed at bottom of car standard, and operating on both sides of the guide, instead of on one side as most manufacturers construct theirs.

These cars are built of very best oak or ash with hard maple floor, and have heavy hardwood bed pieces underneath the floor to support same.

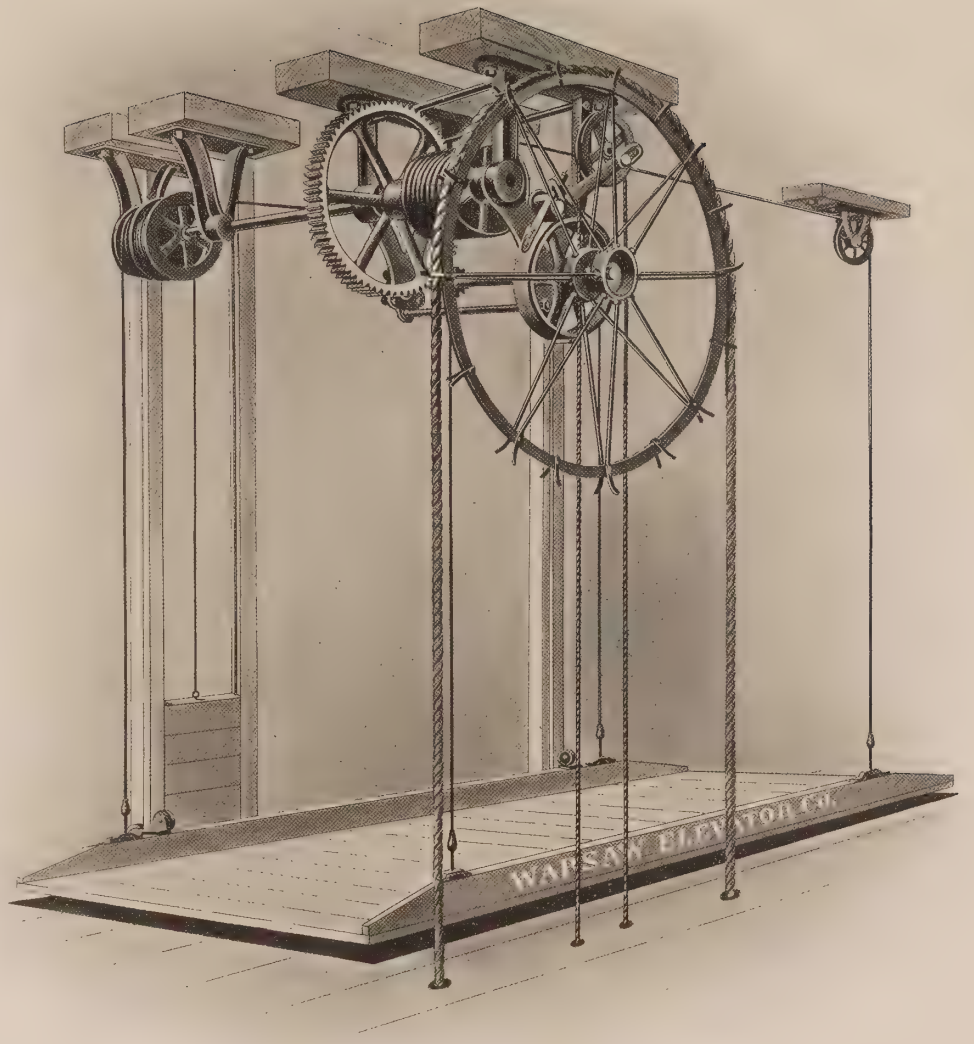
If desired, we can furnish enclosure of slat work, wainscoting or wire work on one or more sides, and of any height.

THE above illustration shows our new type Steel Car, which we are making in all sizes and capacities, and where car is extra long we use double braces instead of single as shown in cut. We use only the very best Steel Channels in construction. Floor is made of best hard maple securely fastened to steel bed pieces underneath same. Many customers desire car of steel throughout and in that case we make floor of stamped steel, diamond pattern, or of heavy boiler steel. Our latest improved safety device is furnished with each car as shown in cut. These safety clamps or jaws are attached to under side of car, where shown in cut, instead of being fastened to top of car standard as is usually done. Our guide shoes are self-adjusting so as to take up all play of car sideways. This car is also furnished with enclosure work on two or three sides of either steel, wire or wood, as desired, and of any height to guard against accident.



ABOVE shows illustration of our hand-power hoist, **IRON FRAME** construction. As you will see, it is very simple in construction and easy to erect, as it can be either bolted to ceiling, as shown in cut, or set on overhead beams as desired. It has steel roller bearings throughout and is without exception the easiest running hand-power hoist made The Brake is of the band type, very powerful, holding the heaviest loads at any point.

We manufacture these in all capacities.



THE above cut shows our new iron-frame Carriage Elevator, erected ready for use. No wood frame work is needed in erecting, as the hangers and sheave brackets are bolted to ceiling timbers, leaving all clear around hatchway.

FIVE CABLES are used, one for each corner of car, and one for counter-weight. Hand-rope may be placed at either corner or at end of platform, as desired.

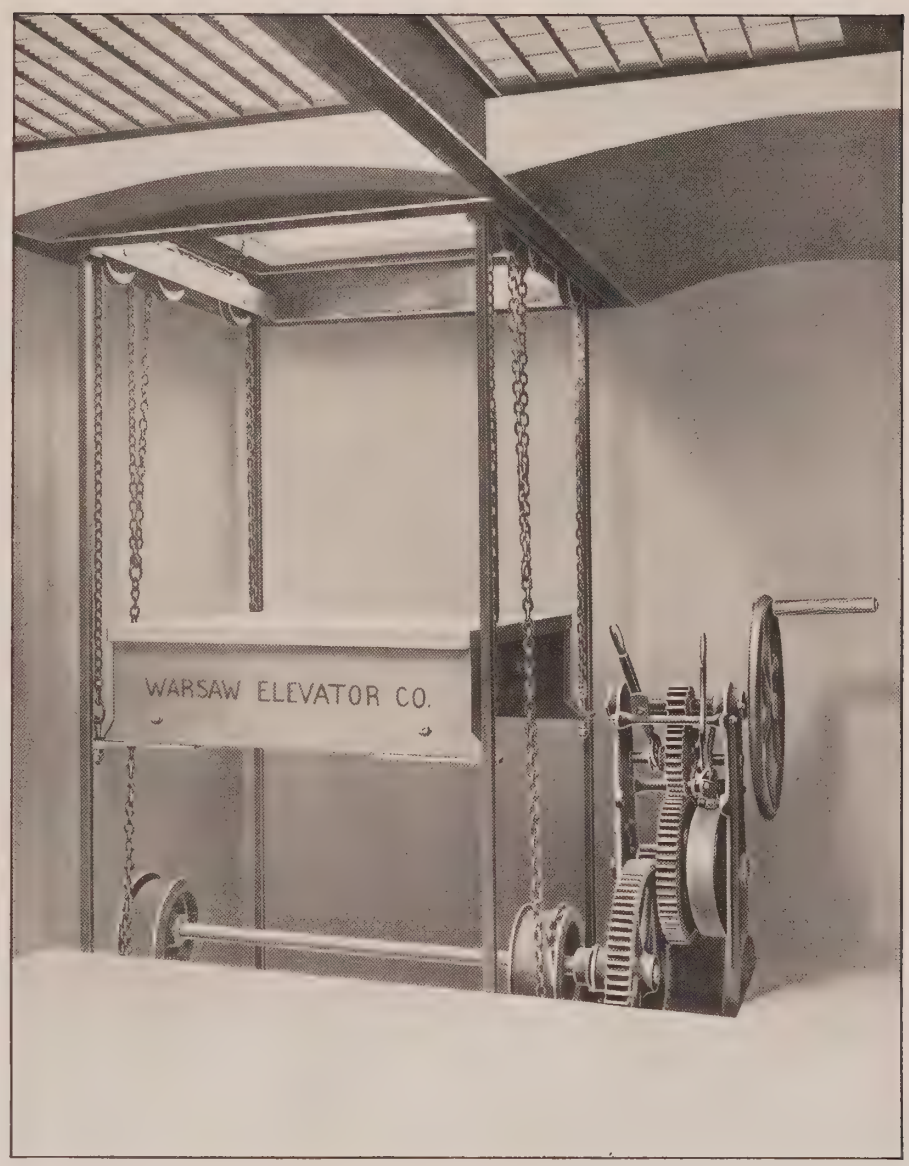
PLATFORM is made of very best hardwood, and of any size. The side rails may be placed on under side if preferred. We also furnish adjusting screws to level platform.

WINDING MACHINE has heavy iron frame, STEEL ROLLER BEARINGS THROUGHOUT, all drums being spirally grooved, to prevent cable chafing.

ROPE WHEEL is steel throughout, of ample size, made very strong, with deep grooves, to prevent hand-rope jumping off.

BRAKE is our regular locking band type which has given such perfect satisfaction in the past.

We can furnish in any capacity, from 1,000 to 3,000 pounds; and blue prints and instructions are furnished, so that any handy man can erect easily.



THE above illustration shows our New Basement or Sidewalk hoist (chain type) erected complete.

WINDING MACHINE is extra heavy and strong with STEEL ROLLER BEARINGS throughout.

PLATFORM is extra heavy and built of very best well seasoned hardwood, firmly bolted and braced. Platform is carried by means of four best quality cable chains (one at each corner) securely fastened to bed pieces as shown. We furnish four Steel Corner Guide Posts, securely bolted at top and bottom to guide car in going up and down, or we can furnish with two steel posts, viz.:- One on each side of car.

DRUMS are extra heavy cast iron, securely keyed to shaft, which turns in STEEL ROLLER BEARINGS.

OVERHEAD SHEAVES are supported by Double Steel Frame, bolted to ceiling. Above cut shows Winding Machine set in pit at side of car. We also construct this with Winding Machine set on level with cellar bottom and are prepared to furnish them either way.

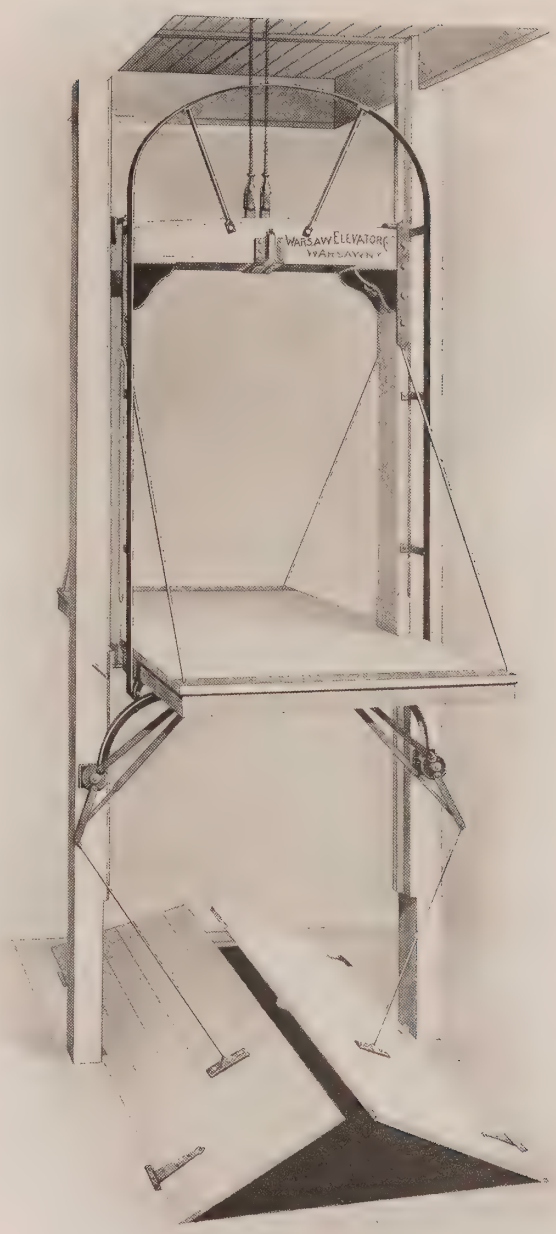
BRAKE is our most popular steel band type, leather lined—very positive, being controlled by lever conveniently placed on winding machine.

BALANCE WHEEL handle is adjustable for heavy or light loads as desired, and placed at convenient height for operator.

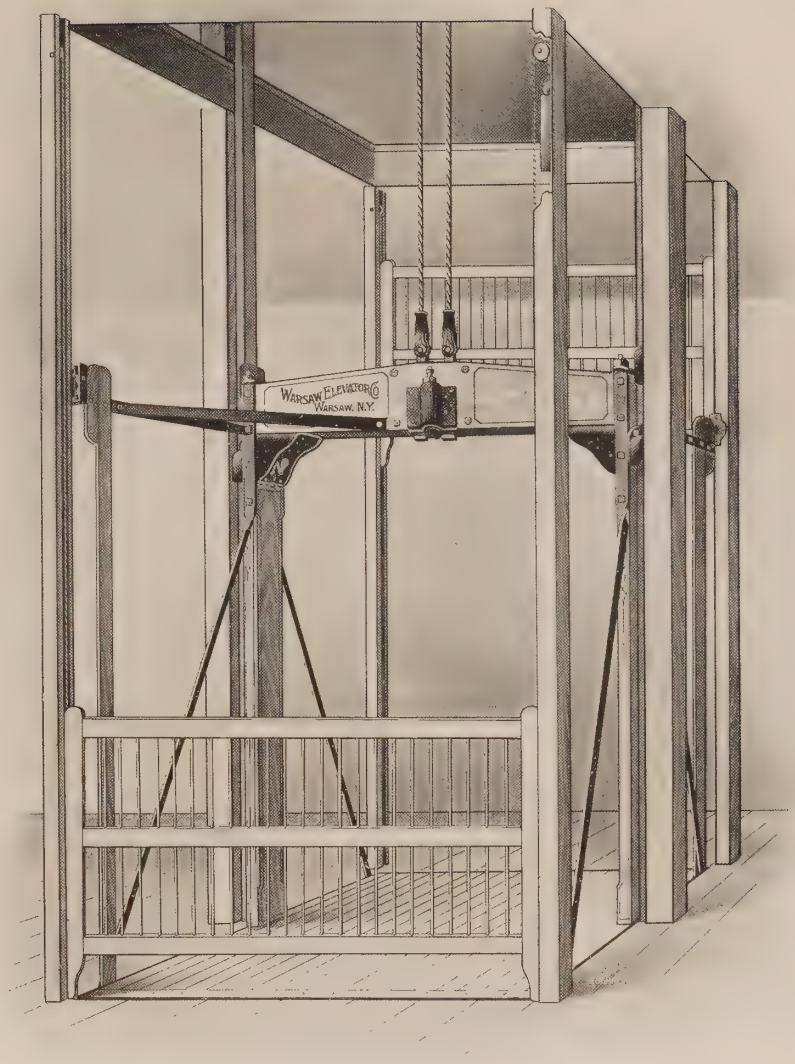
One of the greatest improvements in this hoist over any other is the arrangement provided for throwing out of gear when lowering the load.

This is accomplished by simply touching lever directly in front of operator, and the load will descend without handle turning, thereby not only saving the strain on the machine, but also avoiding the danger of being struck by handle on balance wheel.

We claim superiority over all others in simplicity of construction, as there are very few parts, and any ordinary man can set them in place by following our blue prints. We further claim there is no more rigid hoist made; as the winding machine is iron frame construction throughout, all bolted together, forming not only a very compact but solid machine.

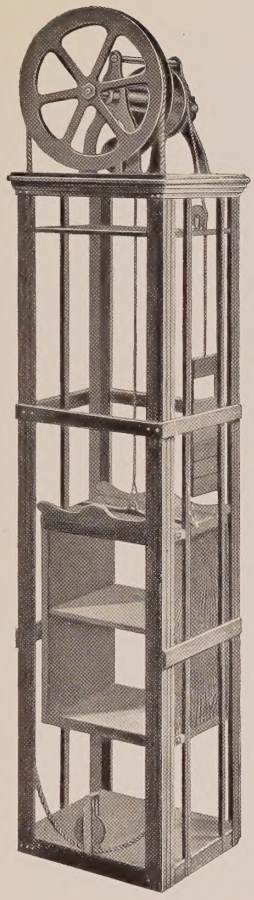


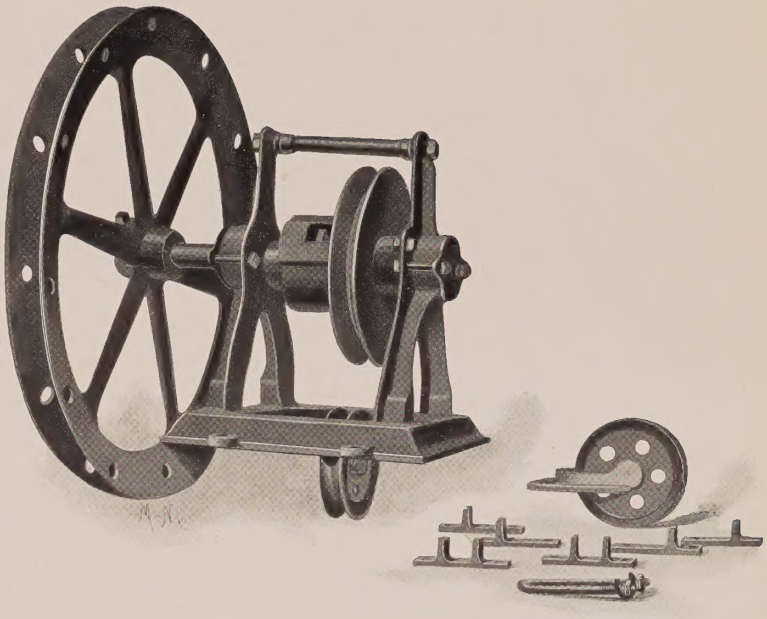
ALMOST every customer to whom we sell an Elevator asks "What can you furnish us in the way of a safety appliance that will not only protect against any one falling down my well hole, but also will protect in case of fire?" To answer not only these purposes, but many others as well, we are manufacturing a full automatic hatch door, the operation of same being shown in above cut, and we can safely say there is nothing better made. The doors are made of planed and matched lumber of proper thickness and in some instances being tinned on under side to conform to underwriters' specifications. These doors are opened and closed automatically by the movement of car, so there is no possible chance to leave the well hole open and cause an accident. The levers shown in cut which open doors as car descends are made of "T" steel and are a great improvement over any now in use, as heretofore they have been made of cast iron, and our construction furnishes one much more durable and less liable to breakage. They are easily adjusted to suit changing conditions of floors of building, and the operation of them is very simple indeed, the roller on car striking lever as it descends and opens the door, car passing on down, the doors closing down on top of bow; as the car ascends this order is reversed, viz.: The doors are opened by bow and closed by the levers. By using these doors you are equipping your elevator with the very latest safety appliance, not only protecting from persons falling down the well hole, but keeping all heat, dust and dirt from passing up through building. In case of fire they are a great protection, in fact, as an all around safety appliance there is nothing better made We also make all kinds of Hatch Covers, full and half Automatic Gates, etc., and can furnish all these appliances both for old as well as new Elevators on short notice.



THE above cut illustrates very clearly our latest improved Half Automatic Gate, which is positively the simplest and best constructed gate on the market to-day These gates are adapted for use with any and all kinds of elevators, and on one or both sides of car as shown in cut, and for either corner or side post style As the elevator car stops at any floor of building, anyone desiring to pass on or off same, raises the gate or gates (which requires very little effort, as gates are weighted), and the attachment on the gate engages a corresponding attachment on the post, fastening the gate up as shown in cut, as long as car remains at floor level. The moment car leaves landing, either going up or down, the gate or gates close themselves automatically, and remain so until again operated as above, thus **avoiding all chance for accident.** Where there are a number of floors, through which elevator passes, none of the gates at the different floors are opened or closed unless it is desired to pass on or off car, thus assuring **constant protection**. Gates are made of best hardwood and slide up and down in grooved posts, and are made any size and height. As many times buildings are low between floors, it is then necessary not only to make gate lower, but the bottom bar of same can also be placed a little higher to permit of proper head-room passing on or off car. On the sides of well hole where no gates are used a light slat work or railing can be placed to avoid accidents. These gates are **inexpensive and indispensable.** Try them, and **save accidents and damage suits.**

We also make Full Automatic Gates, Automatic Hatch Doors, Fusible Link Doors, Etc. Write for prices.





THE above cuts show our self-sustaining dumb waiter complete as erected, and also the winding machine only, some preferring to furnish their own cars. We furnish any size of rope wheel to correspond with hatchways. The following specifications will give you a good idea of their construction:

FRAMES—The machine is complete as shown in solid iron frame with heavy iron base ready to be placed in position, needing only four bolts to fasten same in position. It is impossible for parts to get out of line and cause friction, making it run hard. No extra pieces to bolt up, except one sheave for counterweight.

ROLLER BEARINGS—One of the reasons our dumb waiters run easy is because they have **Steel Roller Bearings** throughout. This construction reduces friction to its lowest possible point and makes a very much easier running machine, as the bearings are a part of the rigid frame.

AUTOMATIC CLUTCH—The Automatic Clutch is very simple and positive, stopping and holding the load at any point whenever the operator releases the hand rope, and will always do this whether car or counterweight is the heavier. It is operated entirely by the hand rope, and from any floor (no check or break line used). This clutch is made of the best steel castings, steel friction disc and bronze thrust ring.

ROPE WHEEL—The rope wheels have extra wide and deep grooves to prevent hand rope jumping when running fast.

CHANGE TO RIGHT OR LEFT HAND—These dumb waiters are so constructed that they may be used with counterweight at right or left hand by changing sheave in frame, and if it is desired to operate car from both sides of well hole, we furnish two rope wheels instead of one.

HAND ROPE—We furnish either pure Manila or Italian hemp hand rope, as preferred, most of our customers preferring the latter, as it is much easier on the operator's hands.

CARS—Cars may be made to fit any size hatchway, and of any kind of soft or hard wood, finished in any desired style, either plain or paneled. They may also be provided with stationary or folding shelves, so that car may be used for hoisting light barrels or boxes. The counterweight and guides are arranged to take up the least possible space. Large numbers of these machines have been installed the past year, thoroughly tested in all positions, and have proved their superiority; they have always given the best of satisfaction, and are guaranteed in every way.